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14. ABSTRACT This study is a policy analysis of the Community Based Health Care Initiative (CBHCI) implemented to address the problems for Soldiers mobilized and deployed in support of Operations Noble Eagle, Enduring Freedom, and Iraqi Freedom. The primary objective of this study is to evaluate whether the CBHCI is the most efficient and effective means of delivering health care to Soldiers in Medical Holdover while achieving a good quality of life for those Soldiers. The secondary objective is to determine the tenets for creating a permanent and long-term solution to address medical board problems that is readily adaptable to the needs of Reserve Component and Active Component forces. Four implementation strategies were evaluated using Bardach's (1996) Eight-Step Path of Policy Analysis. On the basis of efficiency and effectiveness the Medical Retention Processing Unit/CBHCO Hybrid was selected as the best alternative. Successful characteristics from each alternative are combined with gap analysis to suggest a permanent solution for medical management of all non-deployable soldiers.					
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A Policy Analysis of Strategies to Manage Medical Holdovers

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U.S. Army – Baylor University Graduate Program in Health Care Administration
In Partial Fulfillment of the
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Master of Healthcare Administration

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Abstract

The media released an article in October 2003 regarding problems of inadequate housing and poor access to health care for Reservists and National Guard at Fort Stewart, Georgia. This study is a policy analysis of the Community Based Health Care Initiative (CBHCI) that was implemented to address the problems for soldiers who were mobilized and deployed in support of Operations Noble Eagle, Enduring Freedom, and Iraqi Freedom. The primary objective of this study is to evaluate whether the CBHCI is the most efficient and effective means of delivering health care to soldiers in Medical Holdover while achieving a good quality of life for those soldiers. The secondary objective is to determine the necessary elements for creating a permanent and long-term solution to address medical board problems that is readily adaptable to the changing needs of Reserve Component and Active Component forces. Four implementation strategies were evaluated using Bardach's (1996) *Eight-Step Path of Policy Analysis*. On the basis of efficiency and effectiveness the Medical Retention Processing Unit/CBHCO Hybrid was selected as the best alternative. Successful characteristics from each alternative are combined with gap analysis to suggest a permanent solution for medical management of all non-deployable soldiers.

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Introduction

On October 17, 2003, the United Press International (UPI) released a story that revealed critical problems concerning mobilized Army Reserve (USAR) and National Guard (ARNG) soldiers at Fort Stewart, Georgia. According to the author, "Hundreds of sick and wounded U.S. soldiers including many who served in the Iraq war [were] languishing in hot cement barracks...while they wait[ed] -- sometimes for months -- to see doctors" (Benjamin, 2003, ¶1). The article further implied that there were serious access problems at the installation's medical treatment facility and that sick and wounded soldiers were living in extremely poor conditions. "The shortage of billeting space stemmed from using the Cold War mobilization model that envisioned Reservists mobilizing at installations after Active Duty units were deployed" (U.S. Army, 2004a, p.1).

The result of operating under the Cold War paradigm was that housing for Active Component soldiers was not available for use by mobilizing Reserve Component soldiers. This led to use of temporary billeting intended for short-term annual training and weekend drill. Policy in October 2003 required soldiers to remain at the mobilization installation until their unit returned from deployment and demobilized, or until the soldier was processed through a medical evaluation board and discharged. Soldiers lingered in the poor housing conditions waiting for medical treatment and completion of their medical evaluation board. Compounding factors created backlogs in access to health care and resulted in the gradual buildup of soldiers on Medical Holdover that began after the terrorist attacks to the United States on September 11, 2001, and the

subsequent mobilization of USAR and ARNG soldiers to support Operations Iraqi Freedom and Enduring Freedom.

The situation quickly gained national attention and Dr. David Chu, Under Secretary of Defense, took immediate action to address the allegations that the well-being of service men and women were not being met. Chu directed the Secretaries of the Army, Navy, and Air Force to implement new policies with regard, "to military personnel placed on Medical Hold[over] while awaiting medical care and/or resolution of their deployment or separation status because of a medical issue" (2003, p. 1). The Secretaries were to ensure that all Active Duty personnel (including Reserve Component members): 1) receive priority for health care appointments, 2) receive quality lodging and transportation that were in keeping with Active Component forces, and 3) be provided housing that accommodated the medical condition of the member. Dr. Chu also incited the Secretaries to maintain TRICARE access standards and he directed that specialty care access standards for Medical Holdover personnel be reduced from one month to two weeks.

In response to Dr. Chu's directive, the Assistant Secretary of the Army for Manpower and Reserve Affairs (ASAM&RA) established a multidisciplinary team of medical, personnel, and logistics experts to inspect the Army's power projection platforms (PPPs) and determine the magnitude of the problems identified by the press. Team members visited fourteen installations and then met to develop a course of action to address their findings. The team found a program in place at Fort Lewis, Washington, where soldiers were treated and then allowed to go home. The team met on two occasions following their visits to the installations, in November and December 2003 (B.

Scherb, personal communication, February 10, 2005). While U.S. Army Forces Command (FORSCOM) and the Army Office of the Surgeon General (OTSG) recommended the Fort Lewis model, the National Guard Bureau (NGB) was in favor of a community based option. The ASAM&RA, Mr. Reginald Brown, selected the community based model to brief to the Acting Secretary of the Army, Les Brownlee.

The Community Based Health Care Initiative (CBHCI) was designed to reduce workload at mobilization sites where demand for housing and medical care exceeded available resources. RC soldiers were authorized to return to their homes for rehabilitative medical treatment, even if full capacity was not reached at the mobilization sites (U.S. Forces Command [FORSCOM], 2004). On December 19, 2003, only nine weeks after the UPI article was published, the initiative was presented to Brownlee; he approved the concept during that meeting. The policy was approved on January 22, 2004.

Public opinion regarding the crisis had generated sufficient political pressure to drive changes in policy for managing USAR and ARNG soldiers in Medical Holdover. The new plan established authority to stand up the first Community Based Healthcare Organization (CBHCO) not later than March 1, 2004 and four others by March 15, 2004. The organizations were to "coordinate health care, process Medical Evaluation Boards, and provide command and control of MHO soldiers" (U.S. Army, 2004b, ¶ 1.B.6).

Downs (1972) describes this as the "alarmed discovery and euphoric enthusiasm" phase of his "Issue-Attention Cycle" (1972). Down's issue-attention cycle describes the cyclic nature in which "the public becomes interested in an issue (or problem) and, for a while, its attention grows as the issue gains salience, is uncovered

by the media, and is the focus of congressional hearings and presidential speeches” (Weissert, 2002, p. 250). Policy makers reacted very quickly to address the problems highlighted at Fort Stewart. It is not likely that they were afforded full information in which to make an objective, well-informed decision, such as in a rational-comprehensive policymaking model, about the best policy to maximize Army resources. The rational-comprehensive model “depicts a series of logical, well-defined stages: 1) defining the problem, 2) identifying alternatives with the potential to solve the problem, 3) evaluating and selecting an alternative that best meets the goals, 4) describing the consequences of the selected alternative, and 5) evaluating and modifying the alternative in light of its consequences” (Aday, Begley, Lairson & Slater, 1993, p. 168). The decisions made in this circumstance were similar to what Aday describes as, an incremental view of policymaking; decisions made with limited information and under conditions of uncertainty. This is also known as the satisficing model of policymaking where, “the goal is more to alleviate shortcomings in current policy than to find the best course of action” (Aday et al., 1993, p. 169). In the satisficing model, policymakers choose the first acceptable alternative. Understanding the compressed timeframe in which the problems were identified and alternatives were considered, it is not likely that policymakers had sufficient information to find or develop the best course of action to address the Army’s needs for managing Medical Holdover soldiers. It is also not likely that a broad-based approach to address short-term and long-term requirements of the Army at war and in peacetime was considered.

Conditions that Prompted the Study

FORSCOM and OTSG developed the strategy for implementing the CBHCI, while their subordinate units, the Continental United States Armies (CONUSAs) and the Regional Medical Commands (RMCs), were responsible for implementing the strategy (see Appendix B, Organizational Chart for the Community Based Health Care Initiative). During the implementation phase of the new program, First and Fifth Continental United States Armies and the Army Medical Department's (AMEDD) Southeast and Great Plains RMCs along with the Human Resource Command, Office of the Surgeon General, Installation Management Agency, U.S. Army Reserve Command, National Guard Bureau (NGB), and Headquarters Department of the Army coordinated the administrative and medical procedures to manage Medical Holdovers. The first CBHCO was stood up in Florida in March 2004. The four additional CBHCOs were certified in April and May: Arkansas, California, Massachusetts, and Wisconsin. The Southeast RMC and its subordinate MTFs supported the Florida CBHCO, while the Great Plains RMC supported the Arkansas CBHCO. The Southeast RMC and 1st Army implemented the initiative at the Florida CBHCO much like it was directed, however, the Great Plains RMC and 5th Army agreed to different arrangements for managing Medical Holdovers at the Arkansas CBHCO (Great Plains Regional Medical Command, 2004).

While the policy directed that the CBHCO would conduct the medical evaluation board, the Commander of the Great Plains RMC believed that the medical boards could be conducted more efficiently and effectively by the military medical treatment facilities (MTF) in his region. Fifth Army agreed to a limited test case of the MEB process. soldiers assigned to the Arkansas CBHCO who were found Not Fit for Duty would be

sent on temporary duty (TDY), not to exceed seven days, to their respective mobilization/demobilization MTF for initiation of the Medical Evaluation Board (MEB) Process. The soldiers would return to their duty location to await the final adjudication of the PEB. The limited test case would last for the first 50 soldiers sent to the Arkansas CBHCO. Based on the treatment received by these 50 soldiers, statistics on the Arkansas CBHCO would be developed and presented to the 5th Army Staff Medical Advisor. The study was to include the collection of several key variables:

1. The number of Medical Retention Processing (MRP) soldiers sent to AR CBHCO.
2. The number of those MRP soldiers sent to the AR CBHCO that required an MEB.
3. The number of days MRP soldier spent at the mobilization/demobilization station for MEB initiation and the name of installation.
4. The number of MEBs returned for administrative and medical problems and the subject matter of those problems.
5. The number of days from initiation until completion, to include adjudication and appeals.

The GPRMC commander was not only interested in providing the best quality healthcare to soldiers in Medical Holdover, but he was also concerned with the best use of resources in his region. The Army did not get Department of Defense supplemental funds, beyond start-up costs, to resource the Medical Holdover operations or the CBHCI. OTSG has requested Defense Health Plan supplemental funding, however, if provided it would only support Medical Holdover operations by MEDCOM and not those

by the CONUSAs or IMA. FORSCOM, IMA and MEDCOM are currently supporting Medical Holdover operations with their core budgets (B. Scherb, personal communication, February 10, 2005).

The requirement to study the efficiencies of the GPRMC / Arkansas CBHCO model prompted an investigation into the larger question, is the CBHCI is the most effective and efficient means to address the needs of Medical Holdover soldiers and the Army?

Statement of the Problem

To determine whether the Community Based Health Care Initiative is the most efficient and effective strategy for managing Medical Holdovers and whether there are better alternatives for achieving the goals of returning soldiers to their homes and reduce the workload at mobilization sites (in the event that demand for housing or medical care exceeds available resources).

Literature Review

A whole host of issues led to the tribulations at Fort Stewart: Army Transformation, the Global War on Terrorism, and inefficiencies in the medical evaluation board process are just a few. The United States (U.S.) military has undergone significant changes in the last 15 years. It went from a military at peace to one at war, supporting contingency operations all around the world. After the 1991 Gulf War, the Army reduced the size of its forces and realigned significant assets from the Active Component to the Reserve Component. This transformation enabled the Army to deploy with the speed of its light forces and arrive with the combat power of its heavy forces (Stryker Brigade Combat Teams Welcome to Army Transformation, 2005).

"Transformation is the process that is taking the Army from where it was in the late 1990s to the objective force. [It] is designed to take advantage of opportunities presented by emerging technologies and changes in the Army's missions in the post-Cold War world" (Stryker Brigade Combat Teams Welcome to Army Transformation, 2005, ¶1).

The country was attacked by terrorists on September 11, 2001, a time when the Army was facing major structural and strategic changes. The new Chief of Staff of the Army, General Peter J. Schoomaker had just been sworn in as the 35th Army Chief of Staff on August 1, 2003. Schoomaker recognized that the Global War on Terrorism "would not be short, and would require deep and enduring commitment" (Schoomaker, 2003, Foreword). Consequently, he determined that in order to be a more relevant and ready campaign-quality Army with joint and expeditionary capabilities (Schoomaker), the Army must push forward with its transformation. For a year and a half, the Army defended itself from further terrorist attacks. Reserve and National Guards soldiers were mobilized to help secure installations that had been previously open to the public.

On March 19, 2003, President George W. Bush announced that American and coalition forces started a military campaign to "disarm Iraq, to free its people and to defend the world from grave danger" (Bush, 2003, ¶1). The end of major combat operations was declared relatively quickly, on May 1, 2003, however, coalition forces continued to come under attack as combat operations transitioned to civil support. Civil disorder was so severe, that coalition forces were authorized to shoot civilians caught looting Iraqi cities. As a result, the loss of American lives increased with the end of combat operations. Continued operations in Iraq are supported by approximately

138,000 U.S. forces as of September 2004. Of the 138,000 soldiers in Iraq, almost half are from the Army National Guard and Reserves (Galloway, 2004). As of January 2005, approximately 184,000 were mobilized for Operations Noble Eagle, Enduring Freedom, and Iraqi Freedom (Department of Defense [DoD], 2005).

The War in Iraq was the first conflict since the Gulf War of 1991 that required massive mobilization of Reservist forces. Since that time, a number of things have changed, to include Army doctrine. One major change was the timing in which Reserve Component units were used to support combat operations. The Army's Cold War doctrine previously called for the Reserves late in a campaign when Active forces had cleared the installations and moved on to overseas missions. Under this doctrine, the Reserves provided supplemental logistical support to the Active Component that was already supported by the host nation. Today's doctrine relies on Reserve forces early in a conflict to serve in command and control roles for Active and Reserve Component forces (Halliday, Oaks & Sollinger, 2000). Active and Reserve forces prepared for deployment simultaneously during the build-up for the war in Iraq, and this seriously taxed the garrison resources at installations serving as major deployment and mobilization platforms. Despite the support provided to the garrison staffs by Garrison Support Units (GSUs) during mobilizations, command and control of the enormous numbers of soldiers in Medical Holdover, was extremely challenging.

In addition having inadequate staffing to support the command and control requirements, housing was also inadequate. Reserve units historically relied on housing made available by deployed Active Duty units. However, with the simultaneous deployment of Active and Reserve soldiers, the only available housing was that which

was normally used for short duration training events, such as, weekend drill and annual training. Not only was there an insufficient amount of housing, the condition of the housing was not suitable for long-term support (e.g. open bays in sleeping areas, lack of indoor restrooms). The Army directed that Reserve Component soldiers in Medical Holdover status exceeding 30 days would be quartered in facilities equivalent to Active Duty soldiers at each installation. At a minimum, the quarters were to be safe, secure, climate controlled, have indoor latrines, and privacy between sleeping areas (Installation Management Agency [IMA], 2004).

Doctrinal changes in deployment sequencing also stressed the capabilities of the medical treatment facilities. There was an increase of soldiers to process through Medical Holdover and medical evaluation boards with fewer providers and support staff to care for them. Active Duty medical troops are heavily relied upon to serve in dual and expanded roles. Many physicians, nurses and other medical specialties are permanently assigned to medical treatment facilities where they serve during peacetime. The same individuals are assigned as Professional Fillers (PROFIS) in Active Component, Reserve Component, and Multi-Component field units where they serve during wartime or contingency operations. Medical treatment facilities rely on replacements from GSUs, Individual Mobilization Augmentees, and contract providers from the community while PROFIS are deployed.

PROFIS were deployed to support Operation Enduring Freedom (OEF) in Afghanistan as early as October 2001 and were continually deployed to support follow-on OEF rotations and Operation Iraqi Freedom beginning in March 2003. The shortage of providers in the MTFs was compounded by the Department of the Army replacement

policy which only authorized replacement of one out of every two deployed PROFIS. While the deployment policy stated that 50% of the deployers would be replaced, the reality was that gross shortages existed across the MEDCOM due to the total numbers of Reservists mobilized. Not only were there less replacements than there were soldiers deploying, according to Colonel (Retired) Leonard Sly, Assistant Chief of Staff for Operations, Great Plains Regional Medical Command, the replacements did not necessarily have the same skills as the providers who deployed (L. Sly, personal communication, March 22, 2005). The mismatch of skills between deployed soldiers and the replacement soldiers further contributed to the actual shortfalls in the number of providers supporting the medical treatment facilities.

Despite the loss of providers, Army medical facilities were still responsible for treating Reserve Component soldiers, Active Duty Family Members, and retirees. According to BG Richard Ursone, the Assistant Surgeon General for Force Protection, Fort Stewart was insufficiently staffed with case managers to handle the large number of cases going through the medical treatment facility. Implementation of medical management programs was directed by Dr. Winkenwerder, Assistant Secretary of Defense for Health Affairs in April 2004 (DoD, 2004) to effectively manage patient care, improve resource consumption efficiency, and improve the delivery and quality of healthcare. To meet these new requirements, Reserve Component nurses were mobilized to improve the processing of RC soldiers in Medical Holdover.

The Army Surgeon General further attempted to adjust for shortages at the MTFs by assessing the resources available at each installation, shifting resources to the major deployment and mobilization installations, and maximizing the use of alternative

resources. Alternative resources were sought from other Department of Defense services' and Department of Veterans Affairs' medical facilities and personnel. Additional resources were also gained in the TRICARE network to improve access to health care and reduce the time soldiers spent in Medical Holdover status (U.S. Army, 2004b). Poor medical readiness of soldiers in Reserve units exacerbated the strain on the medical system.

Health problems prevented many Army Reservists from deploying during the 1990-1991 Persian Gulf War. Reservists unfit for duty were mobilized and subsequently unable to deploy due to medical reasons and poor dental health. Therefore, Congress passed legislation directing periodic physical and dental exams after the war. The Government Accountability Office (GAO) later conducted a study on the health status of Reservists to determine the "value and advisability of providing examinations" (2003a, p. i). The study found that the Army was not consistently monitoring the health and dental status of early-deploying Reservists and that over 40 physicals and annual medical certificates were not being performed and reviewed by the units. Additionally, the Army's health care information system did not contain comprehensive physical and dental information on early-deploying Reservists. The GAO recommended that requisite physicals be completed and reviewed, annual medical certificates be completed and reviewed, and annual dental examinations and needed treatments be completed (GAO, 2003a).

Reserve Component readiness issues were still evident at the start of OIF/OEF. By the end of October 2003, there were 4,452 soldiers in the Medical Holdover (MHO) population and the numbers were growing (Denning & Peake, 2004). Fort Stewart had

approximately 600 of these soldiers, which resulted in a 33% growth in outpatient appointments from the beginning of OIF to that time (43,000 vs. 33,000) (Kidd, 2004). Reserve and National Guard soldiers are identified as non-deployable during pre-deployment medical screening, post-deployment medical screening, or through evacuation out of theater because of injury or illness while in theater. Approximately two to three percent of soldiers going through pre-deployment medical screening are identified as medically non-deployable (B. Scherb, personal communication, February 10, 2005). According to Usrone, about one-third of the Reserve Component soldiers at Fort Stewart were mobilized and never deployed. The other two-thirds were identified either during or after deployment (Cramer, 2003). Post-deployment medical evaluations identify approximately 8% of soldiers with medical problems that require treatment before demobilization (B. Scherb).

Besides provider shortages and an increase in the beneficiary population, the MTF was still operating under the TRICARE access to care standards for acute, routine, and wellness/specialty appointments. The access standards for acute care is 24 hours, for routine care is seven days, and for wellness/specialty care is four weeks. The standards were equally applied to both Active and Reserve Component soldiers, however, there was a perception that Reservists were being treated with lower priority than were their Active counterparts. Inspectors with the ASAM&RA team believe that this perception developed because Reserve Component soldiers were asked to divulge their component of service during medical visits and when booking appointments. Unequal access was perceived as reality when the story hit the news wire. Although the TRICARE access standards at Fort Stewart and across the Army were being met

(TRICARE Management Activity, 2003), the standards were insufficient considering that these soldiers were not near their homes and family, were living in quarters intended for short-term housing, and that the process of providing maximum therapeutic benefit was taking too long. The Army responded by instituting enhanced access standards for MHO soldiers. The enhanced standards included 72 hours for specialty referrals, one week for magnetic resonance imaging and other diagnostic studies, two weeks for surgery, and 30 days for the medical portions of the medical evaluation board processing. Currently the AMEDD is meeting or exceeding those standards more than 90 percent of the time (Denning & Peake, 2004). Additionally, one case manager was assigned to every 50 MHO soldiers.

Prior to October 2003, the mobilized Reservists and National Guardsmen identified as medically non-deployable were held at the mobilization station for medical treatment and disposition. If soldiers received the requisite treatment and were determined to be medically deployable, the soldier either was deployed and joined their unit in theater or remained in the United States serving in another Title 10 capacity. If the soldier's supervising physician determined that the soldier had reached the maximum therapeutic value from medical treatment and was still unfit for continued service, the soldier was required to undergo a medical evaluation board. A medical evaluation board further evaluates a soldier's fitness for duty and makes a disability assessment; boards often take many months to complete. This meant long stays for Reserve and National Guard soldiers at Active Duty installations and away from family and jobs. To help alleviate this problem, the Army implemented a new policy in February 2004, which allowed soldiers mobilized with pre-existing conditions to be

medically disqualified from mobilization and immediately released from Active Duty if identified within the first 25 days of mobilization (U.S. Army, 2004c). This determination could be made at home station and prevented soldiers from getting to mobilization stations and using up precious resources that were already strained.

The lengthy processing time for medical boards at Fort Stewart led to protracted stays for Medical Holdovers. However, timely management of medical boards was not a new problem and was not just a problem faced by Reserve Component soldiers. Several studies highlighted problems with the medical board process beginning in the early 1990s. These problems equally affected Active and Reserve Component soldiers.

Coquilla (1990) studied timeliness problems with medical evaluation boards. The first objective of the study was to determine the average total processing time of medical evaluation boards at Brooke Army Medical Center (BAMC). The results of the study indicated that the total processing time required more than twice the established standard. The author points out that goals for an organization should serve to motivate and improve performance and therefore must be realistic and achievable. The second objective of the study was to break the medical board process into time segments; the segments included were the initiation of the MEB, physical examination, narrative summary, MEB proceedings, Deputy Command for Clinical Services, and Physical Evaluation Board Liaison Officer (PEBLO). The third objective of the study was to determine which segment contributed the most time to the total process. Coquilla found that physicians who were less likely to know about the physical disability process, such as those in residency programs or direct commissioned, contributed the greatest amount of time to the total process. She revealed that "the AMEDD lacks a systematic

approach for teaching physicians who are new to the military medical system about the physical disability process,” and that “change of duty station of the primary physician can all contribute to delays in processing of MEBs” (Coquilla, p. 73).

Coppola (1996) studied demographic variables and other variables affecting processing and adjudication duration in the Physical Disability Evaluation System (PDES). Using 8,301 records processed through the U.S. Army Physical Disability Agency in 1996, Coppola evaluated days in the PDES. Days in the PDES was measured by the difference between the day the soldier received his physical exam at the medical treatment facility and the effective day of disposition orders. The most significant variables affecting length of stay in the PDES were the amount of final compensation awarded, the requirement for a formal versus an informal Physical Evaluation Board (PEB), requests by the soldier for Congressional or other political involvement, and the soldier's service component. Other than Active Duty soldiers averaged 35 days longer in the process than Active Duty soldiers. Coppola recommended implementing an integrated disability management team at the local medical treatment facility, which includes representation from the medical hold unit, PEBLO, Patient Administration, Personnel, Patient Representative, a clinical representative, and the Inspector General's office. He also indicated that case management and development of critical pathways be developed locally to assist in monitoring soldiers' progress through the system.

Schreckhise (2000) studied the medical evaluation board process at Madigan Army Medical Center (MAMC) to identify unnecessary time delays in the Army medical evaluation board process compared to the Air Force and Navy processes and to

determine if there are better practices the Army could adopt from her sister services to reduce processing times. He used data from 200 Army medical evaluation board cases to compare timeliness outcomes to Air Force and Navy programs. The study indicated that the average processing time at MAMC was approximately 157 days compared to the Air Force at 21 days. He found that delivery of care and preparation of the narrative summary consumed 92.5% of the total processing time. Additionally, he found that MAMC was not properly calculating processing times and noted "inconsistent record keeping by PEBLOs and inappropriate initiation of boards by physicians" (Schreckhise, p. 44). Schreckhise noted that physicians often indicate intent to start a board before the soldier has reached maximum medical benefit from treatment and a determination is made regarding soldier's ability to return to duty in his current Military Occupational Specialty.

Kalamaras (2004) studied problems regarding the physical disability evaluation processing for Reserve and National Guard soldiers deploying in support of OEF and OIF. He recounted personal observations of the large-scale mobilizations conducted at Fort Stewart from September 2001 to June 2002. Kalamaras highlighted findings of investigators sent to Fort Stewart by the U.S. Senate National Guard Caucus. While optimal processing times for MEBs range from 42 days to 76 days (see Appendix C for MEB processing flow) after a soldier has received the maximum therapeutic benefit from medical treatment, investigators found that some soldiers at Fort Stewart had been on Medical Hold for more than 10 months. Long waits for specialty care and a lack of case managers to coordinate care resulted in inefficient processing of soldiers found not medically deployable. Many strategies for minimizing the time required to process

medical boards were not implemented until the problems were brought to light at Fort Stewart.

Poor medical readiness of Reserve Component soldiers has prompted many to question whether access to the direct care system should be provided when soldiers are not mobilized. Since the terrorist attacks on the U.S. in September 2001, over 300,000 Reservists have been called to Active Duty. The GAO (2003b) study evaluated the financial impact and health care concerns for Reservists recalled to Active Duty and discovered that approximately 80% of Reservists had health care coverage when not on Active Duty. Available data did not identify a need to offer TRICARE to Reservists and their family members when not on Active Duty, but data was lacking regarding problems Reservists and their families experienced with health care since September 2001. The GAO recommended further assessment of the needs to improve access to health care for Reservists and their family members. Although permanent access to the direct health care system is not authorized, the 2005 National Defense Authorization Act permanently authorized temporary coverage for Reserve Component soldiers who served on Active Duty, under Title 10, in support of a contingency operation after September 2001. Length of coverage is dependent on their mobilization and their length of commitment to the Reserves or National Guard. The intent is to improve the medical readiness of the Reserve forces.

Extended separation of Reserve Component soldiers from their families, long waits to receive medical treatment and/or go through a medical evaluation board, and substandard living conditions led to public scrutiny regarding the Army's treatment of soldiers in Medical Holdover. Medical and logistical resources at most Active Duty

installations were significantly taxed during OEF, OIF, and other operations because the Army was operating under outdated planning assumptions developed during the Cold War era. The Army recognized these shortfalls and implemented required changes into its transformation process. One of the Army's focus areas on its transformation roadmap calls for Army installations to project power and support families.

Transformation initiatives related to this focus area require installations to provide deployment and redeployment facilities that complement joint force projection that are readily adaptable to changing mission support needs. (U.S. Army, 2004d, p. 5-12).

Purpose

The primary objective of this study is to evaluate whether the Community Based Healthcare Initiative is the most efficient and effective means of delivering healthcare to soldiers in Medical Holdover while achieving a good quality of life for those soldiers. The secondary objective is to determine the necessary elements for creating a permanent and long-term solution to address medical board problems that is readily adaptable to the changing mission support needs of Reserve Component and Active Component forces.

Methods and Procedures

Bardach's (1996) Eight-Step Path of Policy Analysis for beginning practitioners of policy analysis was used as the framework for evaluating the Community Based Health Care Initiative. The subjects for this analysis are mobilized Army Reserve and National Guard soldiers who were identified as non-deployable and entered into the Medical Retention Program during the period from implementation of the CBHCI in March 2004 until March 2005. The Army Decision Matrix (DECMAT) was used to present the results of the analysis. The eight-step methodology used during each step of the analysis is presented below:

Step One: Define the Problem

This step of the process was the most crucial. It established the basis for doing the research and analysis and provided direction to the project. The problem definition provided structure to the final step in the analysis. The definition was designed to be evaluative and provide some indication of the magnitude of the problem. Conditions or alleged conditions that caused the problem are presented. This step of the analysis is presented in the *Conditions Which Prompted the Study* and the *Statement of the Problem* section of this paper.

Step Two: Assemble Some Evidence

Data were gathered and presented that provide information or evidence that bears on the problem. The data was gathered from Congressional Testimonies, expert interviews, graduate and professional studies on medical board timeliness, government reports, and anecdotal evidence. The evidence highlights features of the problem and is presented in the *Literature Review* section of this paper.

Step Three: Construct Alternatives

This step involved discovering policy options or alternatives that might prove to be more effective than the primary course of action, the CBHCI. The first alternative considered was to "take no action and let present trends continue undisturbed" (Bardach, 1996, p. 20). Other alternatives were those considered as likely policy changes and those determined to be more likely based on changes in the population or changes in budgetary support. Causes of the problem were analyzed in order to best develop alternatives. Policy options were not considered mutually exclusive. The alternatives are presented in the Results section of this paper.

Step Four: Select the Criteria

Evaluative criteria were built on the definition of the problem. The most important criterion was that the policy solves the problem. Evaluative criteria were "used to judge the 'goodness' of the projected policy outcomes associated with each of the alternatives" (Bardach, 1996, p. 25). Commonly used evaluative criteria used in health policy analysis are effectiveness, efficiency, and equity (Aday et al., 1993). The results of the criteria evaluation for each alternative are presented in the Results section of this paper.

1. Effectiveness. The framework for effectiveness research is derived from the work of Donabedian. He categorized "medical care in terms of structure, process, and outcomes for the purpose of determining what aspects might be indicators of quality" (Aday et al., 1993, p. 27). The following criteria will be used to evaluate the policy alternatives regarding effectiveness:

(a) Structure (Available Resources). Does the program or policy alternative provide the number of physicians, nurses, and other providers as well as the quantity of monetary resources necessary to support the delivery of health services for the long term? The alternatives were scored from one to four: 1 = best allocation and access to resources, 4 = worst allocation and access to resources.

(b) Process (Physician Turnover). The average length of time providers serve in a position of conducting medical boards. The alternatives were ranked from one to four according to the time providers spent in a position conducting medical boards; 1 = lowest turnover of physicians, 4 = most turnover of physicians.

(c) Outcome (MEB Return Rate). This criterion was used to evaluate the rate in which medical boards were returned to the MTF or CBHCO for insufficient clinical or administrative data. A score was assigned to each alternative: 1 = lowest rate of return compared to the other alternatives, 4 = highest rate of return compared to the other alternatives.

(d) Outcome (Policy Solves Problem). This criterion was used to evaluate whether the alternative solved the primary problems related to implementation of the initiative and provided a good quality of life for the soldier. Quality of life was defined as: 1) adequate housing for the soldier and 2) limited absence from family while waiting to receive medical treatment and required administrative work while a Medical Holdover. The alternatives were ranked from one to four: 1 = lowest rate of return compared to the other alternatives, 4 = highest rate of return compared to the other alternatives.

2. Efficiency (Productive Efficiency). "Efficiency requires that we produce the combination of goods and services with the highest attainable total value, given our

limited resources and technology". Production efficiency, "is producing a given level of output at minimum cost" (Aday et al., 1993, p. 73), and is a major concern in the government, where organizations are constantly attempting to do more with less. Problems with production efficiency occur when organizations do not take advantage of economies of scale (Aday et al.). Each policy alternative was ranked from one to four based on use of economies of scale regarding use of resources to staff and operate the program: 1 = the alternative takes best advantage of economies of scale compared to the other alternatives, 4 = the alternative takes the least advantage of economies of scale compared to the other alternatives.

Alternatives that were ranked equally on a given criterion were dealt with by averaging their rankings and assigning the average to each alternative. For example, if Alternative One and Alternative Two were tied for second and third on a given alternative, the following calculation would be made: $(2+3)/2 = 2.5$. The average, 2.5, would be assigned as the rank to both.

The Decision-Matrix (DECMAT) version 2.2 was used to develop the recommended decision. DECMAT is a decision support tool developed by Captain Richard B. Stickers for use at the Combined Arms Services Staff School at the U.S. Army Command and General Staff College, Fort Leavenworth, Kansas. The program provides a structured way for the user to evaluate different courses of action given multiple and competing decision criteria. A course of action is recommended, based on the inputs provided by the user.

The relative values matrix was used, which involves the assignment of a relative value or a rank to each course of action against a given criteria. The user first assigns

weight to the criteria to represent the hierarchy or level of importance of one criterion over another. In this study, Program Solves the Problem is the most important criteria and Available Resources is the second most important criteria. To weight the criteria, the user inputs a numerical importance factor by comparing each criterion to the others. The numerical factors are assigned as follows: 1 = Equally Important, 2 = Slightly Favored, 3 = Favored, 4 = Equally Favored (See Figure 2). After weights were assigned to the criteria, the alternatives were rank ordered according to each criterion. The relative value method computes a total by adding the products of the relative value times the criterion weight across a course of action. The course of action with the lowest score in the total column is the recommended course of action.

Pairwise Comparison				
	2	3	4	5
1	3	3	3	3
2		2	2	2
3			1	1
4				1

Print

Send Values

Cancel

Override

Help

Enter the importance factor of each horizontal evaluation criteria compared to each vertical evaluation criteria

Legend of Importance Factors
 1 - Equal
 2 - Slightly Favored
 3 - Favored
 4 - Strongly Favored

Figure 1. Assigning weights to the criteria is done through comparing the importance of each criterion to the other. The user determines whether each criteria is equally important, slightly favored, favored, or strongly favored compared to each of the other criteria.

DECMAT provides tests to measure the validity of the solution. The sensitivity analysis identifies the degree to which the results are subject to change with only small changes in the evaluation criteria weights. The sensitivity analysis is a pairwise comparison of the weights. A solution that is not sensitive to change provides confidence that the solution is valid. The consistency ratio is calculated after the sensitivity analysis and provides a numerical value measuring how well the pairwise comparison values maintain a logical series of relationships. The program uses a least squares method to measure how well the logic fits (Ragsdale, 1997). A consistency ratio of 95% or more means the logic of the comparison is acceptable enough to use the weights assigned to the criteria.

Equity was considered when developing the recommendation for future policy options. A Utilitarian view of the distributive justice theory was applied to evaluate the equity of the policy alternatives. The goal of this theory is to maximize the utility or "promote the greatest good for the greatest number" (Aday et al., 1993, p. 125).

Step Five: Project the Outcomes

The outcome of each alternative was projected. Relevant evidence and experience concerning similar or analogous policies were used to make the projections. The magnitude and direction of the outcomes were projected where possible. The projected outcomes for each policy alternative are presented in the Results section of this paper.

Step Six: Confront the Tradeoffs

The tradeoff analysis is an evaluation of outcomes. The tradeoffs between policy alternatives are considered and used to determine the score each alternative receives regarding a criterion. The tradeoffs are presented in the Results section of this paper.

Step Seven: Decide

The recommended decision is presented based on the previous analysis in the Conclusion section of this paper.

Step Eight: Tell Your Story

The last step is the basic story that explains and attempts to persuade others to support the recommended decision. It compares the recommended policy to the next best choice and shows why the recommended policy is better. This step is presented in the Conclusions and Recommendation section of this paper.

Results and Discussion

Policy Alternatives

Four policy alternatives were evaluated during this study: MRP, CBHCO Florida, CBHCO Arkansas, and the MRPU/CBHCO Hybrid. The policy alternatives are different implementation strategies for managing Medical Holdovers.

The first alternative, Medical Retention Processing or MRP (Title 10 USC§12301(d)), was in place prior to October 2003. soldiers found medically unfit for deployment and who are unable to return to duty within 60 days are reassigned to the installation's Medical Retention Processing Unit (MRPU). soldiers who consent to remain on Active Duty for treatment are retained at the installation until the requisite treatment is complete or until the maximum therapeutic benefit of treatment is achieved.

soldiers who decline to remain on Active Duty for treatment are released from Active Duty and may then seek treatment using Transitional Assistance Management Program (TAMP), TRICARE Reserve Select, or Veterans Affairs benefits. Appendix D depicts the algorithm used by case managers to process soldiers in Medical Holdover. The Pacific Regional Medical Command (PRMC) and Tripler Army Medical Center will be used in this study to represent the MRP for the purpose of this analysis.

The second alternative, CBHCO Florida, was established by 1st Army as directed in the FORSCOM Implementation Plan (FORSCOM, 2004). It was certified for operations in March 2004 and received its first patients on April 16, 2004. Similar to MRP, RC soldiers are identified as Medical Holdovers at the mobilization station and may accept or decline to remain on Active Duty. soldiers who elect to remain on Active Duty, are assigned to the installation MRP Unit (MRPU). The MRPU and local medical authority determine whether the soldier is a candidate for transfer to the CBHCO. To qualify for the CBHCO, soldiers must reside in Florida and within commuting distance from an appropriate TRICARE provider. The soldier must have transportation and have the ability to perform duty (within the limits of their profile) within the resident location. The soldier must not be pending other administrative actions or actions under the Uniform Code of Military Justice (UCMJ). soldiers are reassigned on Temporary Change of Station (TCS) orders and transferred to the CBHCO. A case manager and a primary care manager (PCM) are assigned once the soldier arrives at the CBHCO. FORSCOM retains command and control of Title 10 soldiers via the 1st CONUSA.

The CBHCO is currently staffed with 42 personnel and is designed to support 316 soldiers. It is approved for expansion to support 500 soldiers; approximately 64

personnel are required (FORSCOM, 2005). The staff is divided into a medical element, a command and control element, and an administrative support element. The medical element consists of a physician, a chief nurse, case managers, and patient administration staff. Most staff are mobilized to serve for one year in their position; however, physicians serve for 90 days. Their role is medical management of the soldier's condition. The team coordinates referrals, TRICARE authorization, appointment scheduling, and monitors and documents the progress of the medical treatment. Once the soldier recovers from his illness and/or injury, he is released from Active Duty (REFRAD). If, however, the soldier does not recover, but reaches the maximum therapeutic value of medical treatment, he is referred for a medical evaluation board. The medical evaluation board is conducted by the physician at the CBHCO and forwarded to the Physical Evaluation Board upon completion.

The command and control element is made up of a commander, a first sergeant, and platoon sergeants and is responsible for maintaining 100% accountability of soldiers assigned; the status of soldiers are reported to FORSCOM and OTSG. Each soldier is assigned meaningful Title 10 work within the limits of their physical capabilities and must report to work daily. soldiers whose needs cannot be met or fail to comply with the program are returned to the mobilization station.

Finally, the administrative support element is made up of personnel specialists, supply specialists, and administrative clerks. This element conducts data entry, personnel actions, and pay actions for the soldiers assigned. The element also provides communication support, data entry, and prepares reports for the other elements of the

organization. The CBHCO remains linked to an active Army installation for support (e.g. transition assistance, information management/technology support).

The third policy alternative is a modified strategy for implementing the CBHCI. While CBHCO Arkansas is task organized identically to CBHCO Florida as described in the implementation strategy, the process used for conducting the medical evaluation boards is different. Soldiers are transferred to the CBHCO where they are provided Title 10 assignments near their homes and appropriate medical care is provided through network providers, other DoD MTFs, or through VA facilities. Once the soldier is identified as achieving the maximum therapeutic value from medical treatment, documentation is gathered by the CBHCO staff, the narrative summary is dictated by the CBHCO provider, and the packet is forwarded to the MTF at the installation through which the soldier mobilized, demobilized, or evacuated to within the GPRMC. An appropriate MTF in the GPRMC is selected for the soldier if the mobilization, demobilization, or evacuation occurred at an MTF outside the GPRMC. Coordination is made by the CBHCO and the MTF for the soldier to return to the MTF for five days while the medical evaluation board is conducted. The soldier is present for the board in the event that further clinical or administrative information is required to complete the medical board. The MTF forwards the case to the Physical Evaluation Board for further adjudication. The soldier returns home to await final adjudication of the board.

The final policy alternative is known as the MRPU/CBHCO Hybrid or the Hybrid option and is pending implementation in Hawaii, Alaska, and Puerto Rico. According to the FORSCOM program director for CBHCI, COL Barb Scherb, this program is not much different from what we are doing for Medical Holdovers assigned to the MRPU

who are not eligible for CBHCO. The primary difference is that the Hybrid option authorizes soldiers to seek rehabilitative care in their home communities, as if they were assigned to a CBHCO. The Hybrid program will provide personnel to augment the garrison and MTF staffs. The soldiers will be retained at the installation where they will receive rehabilitative medical treatment until such time that they achieve maximum therapeutic value, or until they recover from illness and injury, and are returned to duty or released from Active Duty. The medical evaluation board will be conducted by the MTF and then forwarded to the PEB for further adjudication. The soldiers will return home and continue working in Title 10 assignments until final adjudication of their case by the PEB. Analysis regarding the Hybrid option was done by estimating outcomes based on the MRP and other known factors.

Criteria Evaluation, Projected Outcomes, and Tradeoff Analysis

Policy alternatives were evaluated on the basis of effectiveness and efficiency. The alternatives were evaluated for effectiveness in solving the problem related to the purpose for implementing the policy. MRP is the only program that does not solve the problem of giving soldiers a good quality of life. While it provides housing comparable to Active Duty, it requires that soldiers receive rehabilitative medical treatment at the Active Duty installation. The soldier is not released from Active Duty until fully recovered from injury or illness, or until a medical board or other action is taken to change the soldiers duty status.

Soldiers' quality of life is decreased by requiring the soldiers to stay at the demobilization installation for treatment. The soldiers' quality of life is improved where family or friends can assist him through recovery. Requiring soldiers to be treated at

Active Duty installations means separating soldiers from their families and homes for long periods. Soldiers identified as non-deployable while in theater or during demobilization medical screening are affected the most by this limitation. These soldiers have already been separated from their families for the length of their pre-deployment activities, deployment, and redeployment activities. Requiring soldiers to stay through the length of their medical treatment and rehabilitation creates unnecessary strain on soldiers and their families.

CBHCO Florida, CBHCO Arkansas, and the Hybrid program, each provide housing comparable to their Active Duty counterpart until the soldier is transferred to the CBHCO, as defined in IMA policy. The CBHCO and the Hybrid options authorize the soldier to seek rehabilitative care near their home if the soldier meets the requirements for enrollment in the CBHCI.

With regard to available resources, Florida and Arkansas CBHCO were funded by special appropriation and are staffed by mobilized National Guard medical personnel. An estimated \$10 million was authorized for start up costs in fiscal year 2004, however, that funding covered everything except labor costs. The cost of the program has come from the core budgets of FORSCOM, IMA, and MEDCOM since then. Costs for this fiscal year are estimated at \$23 million (B. Scherb, personal communication, February 10, 2005).

Medical personnel in the National Guard are limited and staff for the CBHCI will eventually need to be filled using USAR, Active Component, and contract personnel, or a combination thereof. Certain positions, such as the commander and first sergeant (those who are required for command and control), are required to be military. Others,

including the senior medical officer, must understand the requirements of a soldier in order to properly evaluate their fitness for duty. FORSCOM determined that 14 of the 64 positions require military personnel, while the others could or must be filled with civil service or contract personnel. At present, military personnel are staffing all the positions because funding for mobilizing soldiers was readily available. Both CBHCO Florida and Arkansas require a greater number of personnel than does the Hybrid program. The Hybrid program makes use of economies of scale by supplementing the staffing that supports the MRPUs and MTFs at the active installations. The GSUs already perform MHO operations at the PPPs, therefore, duplication of processes and resources required to manage soldiers in Medical Holdover are minimized.

Standing up separate organizations, like the CBHCOs, in remote locations requires additional resources. The CBHCOs incur costs to lease buildings, provide transportation, lease communication services, and provide other support to track soldiers and manage their care. The projected outcome is that the CBHCI will not receive additional funding to resource the CBHCOs with contracted or civil service staff. Therefore, mobilized soldiers will be needed to continue support of CBHCOs Florida and Arkansas, and the costs of operating the programs will continue to come out of core funding. The Hybrid Program makes the best use of resources by: reducing human resource requirements by using supplemental resources already in place at active installations, and reducing the additional TDY costs for soldiers to travel to the CBHCO and then to their home station for medical treatment. MRPs are currently understaffed and were never properly funded to provide the intended services needed for Medical Holdovers.

CBHCO Florida physicians screen soldiers' medical records for necessity of medical evaluation boards and conduct the medical boards. Coquilla (1990) contended that turnover of physicians can contribute to delays in processing the medical evaluation board. Each delay in processing the medical board creates more delays for soldiers serving as a Medical Holdover. The longer it takes to adjudicate the medical board, the longer the soldier must serve on Active Duty, and the longer it will be until the soldiers may return to pre-mobilization employment. One might conclude that a physician who infrequently conducts medical boards and who serves in such a position for a short period would have more problems properly completing the administrative and clinical requirements for the medical board. Both the MRP and the Hybrid programs use physicians at the MTF who are generally assigned to the MTF for two to three years to conduct medical boards. The Deputy Commander for Clinical Services (DCCS), a physician, generally serves as the final authority for the medical board. In other cases, the president of the medical board is a retired Active Duty physician who permanently fills the position. The MRP and Hybrid options provide the least turnover of providers and should minimize the processing time due to errors in administrative and clinical documentation.

MEB return rate is an outcome measure and a determinant of effectiveness. MEB return rates for the 1st Quarter 2005 were used to evaluate the effectiveness of the policy alternatives. Lower MEB return rates were associated with the PRMC, where the MRP and pending Hybrid program are used, than in GPRMC and SERMC where the Arkansas CBHCO and Florida CBHCO are used, respectively. PRMC averaged a 5% return rate for the 1st Quarter, while GPRMC had 14%, and SERMC had 18%. However,

GPRMC submitted the highest number of medical boards, 1,111, with only 153 returned for administrative or clinical reasons. SERMC submitted 776, of which 141 were returned. PRMC submitted 112 and 6 were returned.

Regarding production efficiency, each policy alternative was evaluated for its use of economies of scale regarding resources to staff and operate the program. The Hybrid program makes the best use of resources compared to the other alternatives.

Economies of scale are achieved by supplementing the existing structure and resources of the MRPU and the MTFs Medical Hold Company, case management team, and patient administration departments. Expenses necessary to establish free standing CBHCOs in the communities, such as additional transportation of soldiers to CBHCO for inprocessing and outprocessing, are avoided. Installation services, such as TRICARE benefits advisors, VA transition counselors, and other resources related to post-deployment issues are available at Active Duty installations where they are not in the community. The MRPU works closely with the MTF and other installation resources to care for the soldier. This program is very similar to the Hybrid alternative, however it is rated lower because it is insufficiently staffed for command and control and case management. CBHCOs Florida and Arkansas require more resources to achieve the same output as the Hybrid and the MRP.

The decision matrix shown in Figure 1, displays the results of the criteria evaluation for each policy alternative using DECMAT. The Hybrid program or MRPU/CBHCO was the recommended alternative with a score of 12.816. The next best alternative was MRP, with a score of 22.632. The criteria were not sensitive to changes in weight and the consistency ratio was 98.7%; the pairwise comparison of criteria

weights maintained a logical series of relationships and provides confidence in the solution.

DECISION MATRIX CBHCI						
Weight Criteria COA	3.52 Solves Problem	1.77 Available Resources	1.00 Physician Turnover	1.00 MEB Return Rate	1.00 Production Efficiency	Total
MRP (PRMC)	4	2	1.5	1.5	2	22.632
FL CBHCO (SERMC)	2	3.5	4	4	3.5	24.736
AR CBHCO (GPRMC)	2	3.5	3	3	3.5	22.736
MRPU/CBHCO Hybrid	2	1	1.5	1.5	1	12.816

Relative Values Matrix
Less is better
Consistency Ratio = 98.70

Figure 2. The Decision-Matrix (DECMAT). The evaluation criteria are scored for each policy alternative considered in the study. The totals represent the sum of the products of the score and the criteria weight across each alternative. The lowest total represents the best policy alternative.

Conclusions and Recommendation

The Army was not prepared for the challenges of simultaneously deploying Active Component and Reserve Component forces to support the Global War on Terror. Shortages of long-term housing, constrained access to medical care, and degraded quality of life for Reserve Component soldiers were indicators of a larger problem. The Army did not properly plan and resource programs to support the needs of the total Army (both Active and Reserve Components) operating under its expeditionary campaign. By early 2002, Reserve and National Guard soldiers mobilized to support OEF and OIF were held 10 months waiting for MEBs which should have only taken two to three months to complete.

The Army was transforming so quickly, it barely recognized the indicators in time to react. When the story about the maltreatment of soldiers and the number of soldiers on hold at Fort Stewart hit the press, policymakers scrambled for a quick, interim solution; this clearly temporary solution was the Community Based Health Care Initiative. By design, CBHCI was not a completely thought-out, permanent policy. There were, however, some great things that came out of the implementation of this temporary policy. Most of these positive elements are found in the MRPU/CBCHCO Hybrid initiative.

The MRPU/CBHCO Hybrid program, while still a concept, offers the best solution compared to the other policies evaluated in this study. It combines the positive tenets of the MRP and the CBHCI by using the available resources in the most efficient manner and capitalizes on economies of scale when possible. The MRP already provided a solid foundation for managing Medical Holdovers; however, improvements were needed to overcome some of its shortfalls. One such shortfall was that MRPU were under-resourced.

The MRPUs are not structured to support surges of soldiers in Medical Holdover during mobilizations in support of combat and contingency operations. To compensate for this shortfall, Reserve nurses were mobilized to serve as case managers and support the medical management mission. These nurses were assigned primarily to MTFs at power projection platforms to support the additional workload caused by local Medical Holdovers. The nurses did not have a previously identified habitual relationship with the MTF to which they were assigned. Although this has worked out well for MTFs

with nurse case managers, this plan was an afterthought, and it is not yet integrated into the organizational structure.

Continuity of care was initially one of the biggest reasons for keeping soldiers at the mobilization site (Leahy, 2003). This coupled with the need to maximize the use of human resources leads to the conclusion that the best course of action is to develop a program that is flexible enough to expand and contract with the needs of an expeditionary Army at war. While AR 40-501 directs medically held soldiers to remain near their mobilization posts, there is no restriction against assigning them to another facility close to home (Leahy). It is reasonable that Reserve Component Medical Holdover soldiers still be allowed to receive medical treatment at a facility near their home, while they recover after extended deployment and reap the benefits of being with their families or other support structure to which they are accustomed.

The MRPUCBHCI Hybrid program provides additional personnel to support the MRPU during surge periods. It also minimizes quality of life concerns, by authorizing qualified soldiers to go home to receive long-term rehabilitative treatment. The MRPUCBHCI Hybrid concept overcomes the shortfalls of the existing program and provides flexibility for expansion and contraction in support of a modular, expeditionary Army. MRP was a good program, but was under-resourced for the current mix of Active and Reserve Component soldiers needed for today's Global War on Terrorism.

The second objective of this study is to determine the necessary elements for creating a permanent and long-term solution to address medical board problems that is readily adaptable to the changing mission support needs of Reserve Component and Active Component forces. Regarding this objective, it is likely that the creation of the

CBHCO was a second or third order effect from transforming strategies for deploying Active and Reserve Component soldiers. The Active and Reserve Components have long had problems related to timeliness of medical boards. Efficiencies gained in learning to deal with Reserve Component board issues must be applied to future policy concerning Active Army soldiers.

Medical management has been implemented across the AMEDD. However, more emphasis is needed on a program that improves the overall medical and administrative management of soldiers going through medical evaluation boards or through long-term treatment for medical problems. Future policy must address a comprehensive program that addresses the needs of Active and Reserve Component soldiers who require administrative and medical management.

This should not be an individual effort; future policy should allow for multi-functional teams to manage soldiers through the medical process (Coppola, 1996). Literature suggests that an integrated disability management team at the local medical treatment facility, which includes representation from the medical hold unit, PEBLO, Patient Administration Office, Personnel, Patient Representative, a clinical representative, and the Inspector General's office, would be best suited to expedite this process for soldiers (Coppola). A flexible policy allowing for management and development of critical pathways at the local level to monitor soldiers' progress through the system is advised (Coppola). The implementation of the MRPU/CBHCO Hybrid holds serendipitous lessons that can be applied to future research and policy.

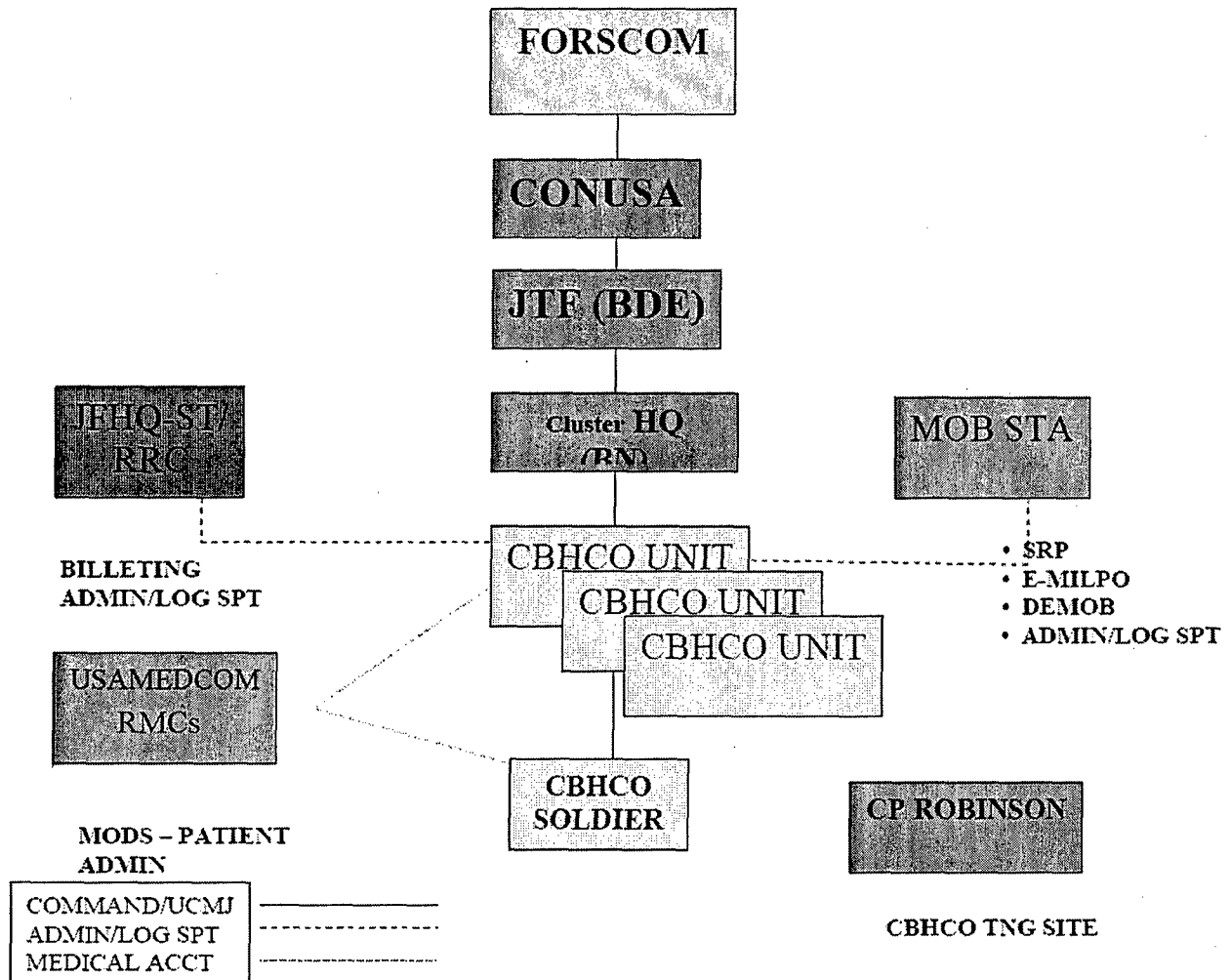
Appendix A: Definitions

AMEDD	Army Medical Department
ARNG	Army National Guard
ASAM&RA	Assistant Secretary of the Army for Manpower and Reserve Affairs
BAMC	Brooke Army Medical Center
CONUSA	Continental United States Army
CBHCI	Community Based Health Care Initiative
CBHCO	Community Based Health Care Organization
DECMAT	Decision Matrix software
DoD	Department of Defense
FORSCOM	U.S. Army Forces Command
GAO	U.S. Government Accountability Office
GPRMC	Great Plains Regional Medical Command
GSU	Garrison Support Unit
IMA	Installation Management Agency
MAMC	Madigan Army Medical Center
MEB	Medical Evaluation Board
MEDCOM	U.S. Army Medical Command
MHO	Medical Holdover
MRP	Medical Retention Processing
MRPU	Medical Retention Processing Unit
MTF	Military Treatment Facility (hospital)
NGB	National Guard Bureau

OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom
OTSG	U.S. Army Office of the Surgeon General
PDES	Physical Disability Evaluation System
PEB	Physical Evaluation Board
PEBLO	Physical Evaluation Board Liaison
PPP	Power Project Platform
PRMC	Pacific Regional Medical Command
RMC	Regional Medical Command
SERMC	Southeast Regional Medical Command
USAR	U.S. Army Reserves

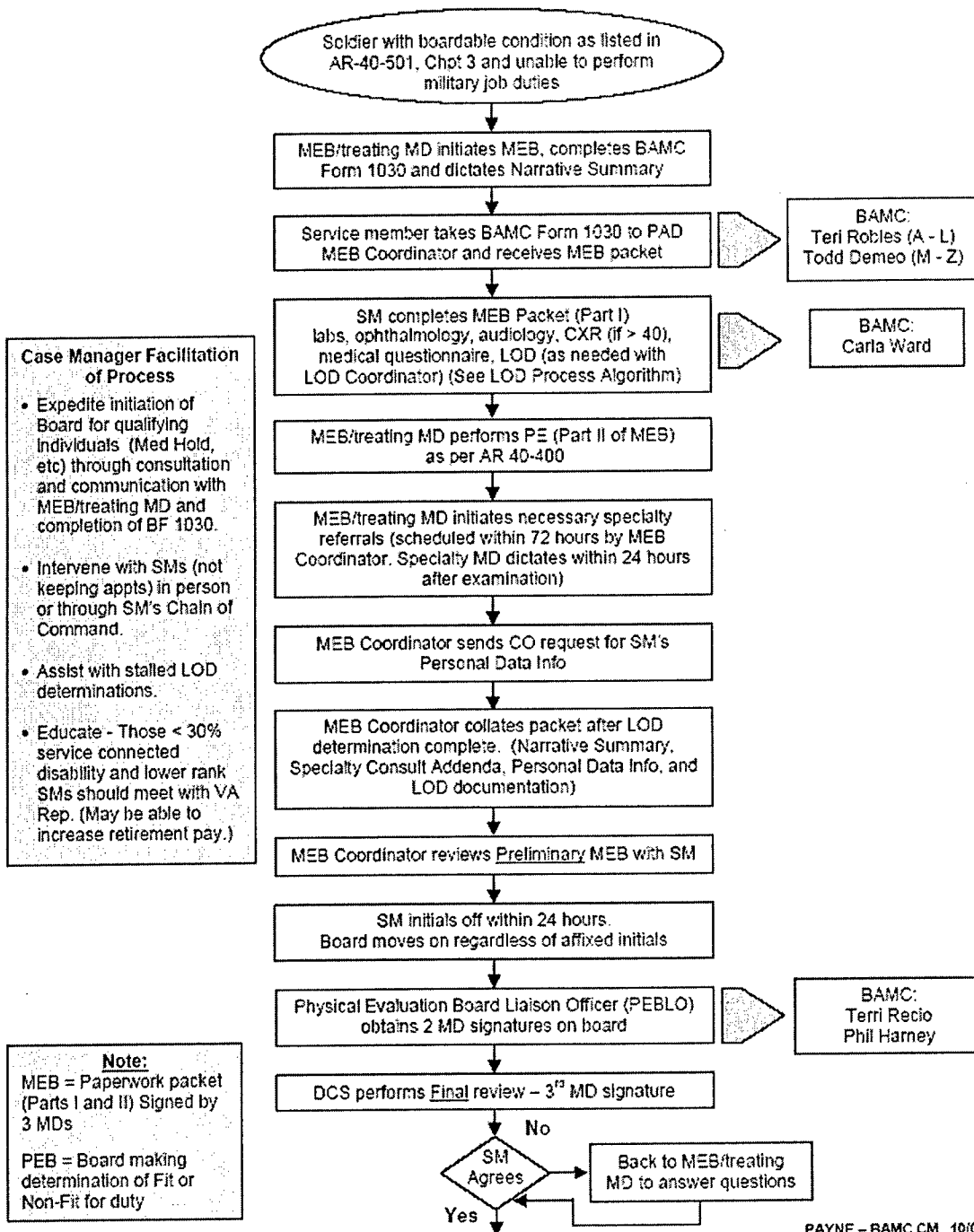
Appendix B: Organization Chart for Community Based Health Care Initiative

ANNEX A (TASK ORGANIZATION) TO FORSCOM IMPLEMENTATION
PLAN FOR COMMUNITY BASED HEALTH CARE INITIATIVE (CBHCI)

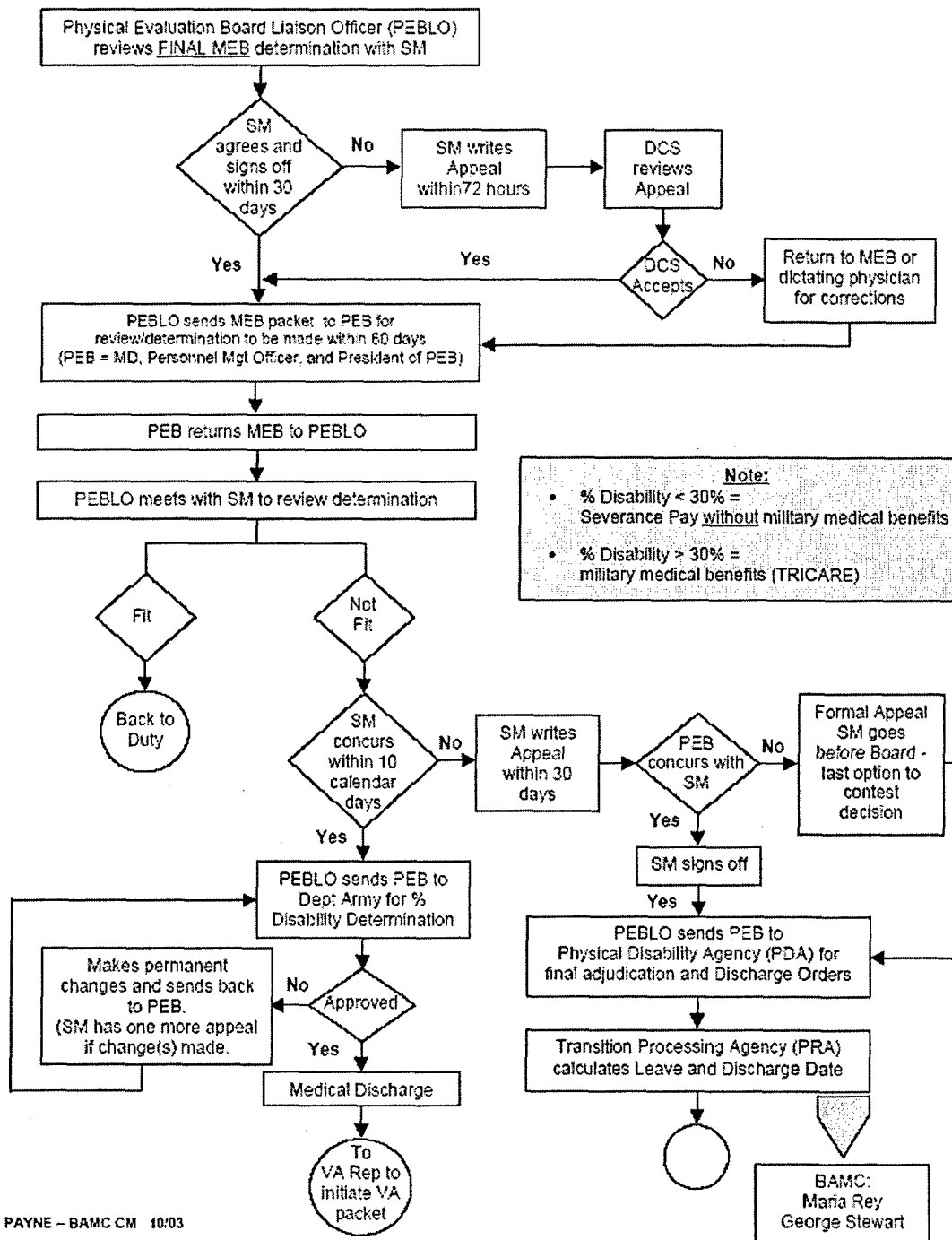


Appendix C: Medical Evaluation Board 90 Day Process

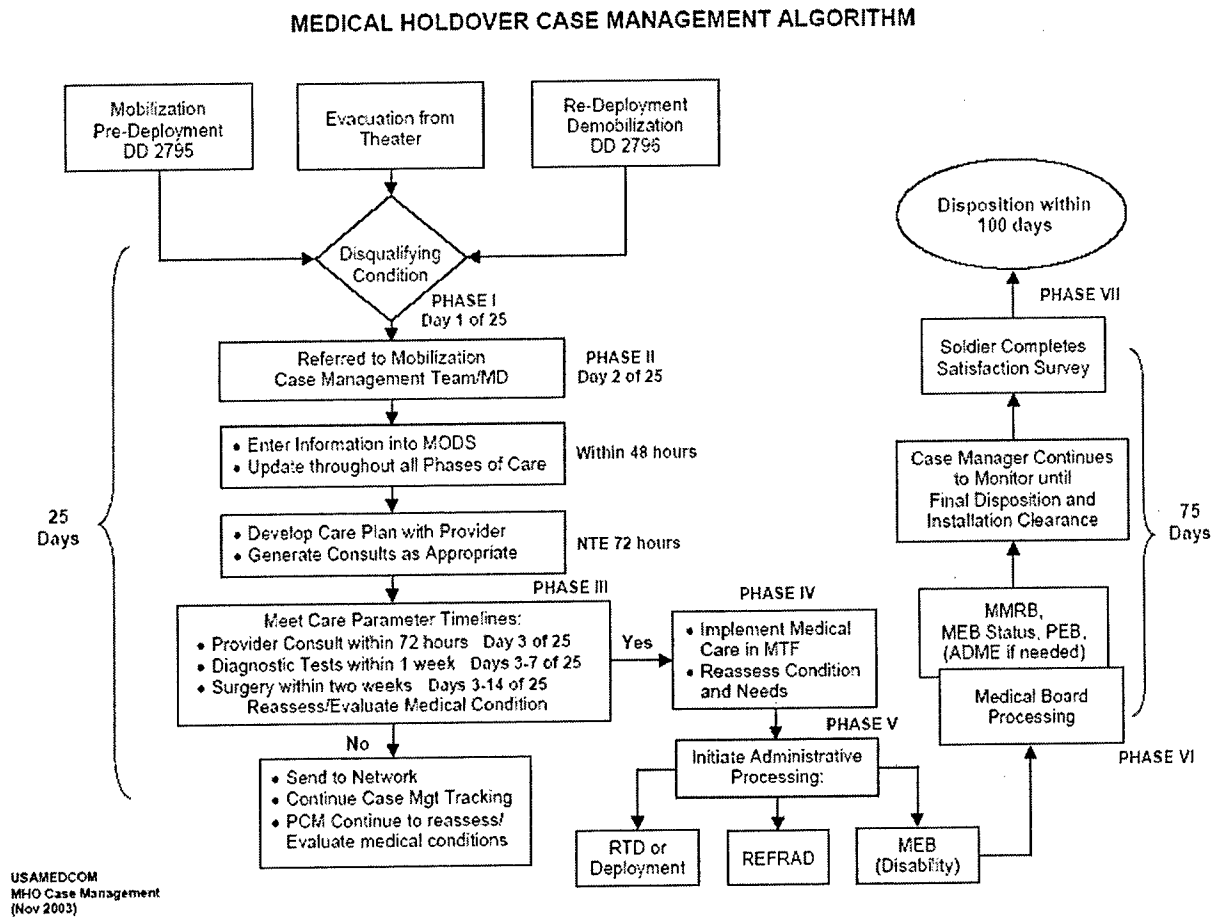
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MEDICAL EVALUATION BOARD (MEB)
90 DAY PROCESS (Page 1 of 2)

**MEDICAL EVALUATION BOARD (MEB)
90 DAY PROCESS (Page 2 of 2)**



Appendix D: Medical Holdover Case Management Algorithm



References

- Aday, L.A., Begley, C.E., Lairson, D.R. Slater, C.H. (1993). *Evaluating the Medical Care System*. Ann Arbor, MI: Health Administration Press.
- Bardach, E. (1996). *The Eight-Step Path of Policy Analysis: A Handbook for Practice*. Berkeley, CA: Berkeley Academic Press.
- Benjamin, M. (2003). *Sick, Wounded U.S. Troops Held in Squalor*. Retrieved October 27, 2004 from <http://www.upi.com/view.cfm?StoryID=20031017-024617-1418r>
- Bush, G.W. (2003). *President Bush Addresses the Nation*. Retrieved October 19, 2004 from <http://www.whitehouse.gov/news/releases/2003/03/20030319-17.html>
- Chu, D. (2003). *Memorandum Subject: Personnel on Medical Hold*, dated October 29, 2003.
- Coppola, N. (1996). Variables affecting Army physical disability processing. *Military Medicine*, 163(7), 456-461.
- Coquilla, B. (1990). *A Study to determine factors contributing to medical evaluation board processing time at the Joint Military Medical Command – Brooke Army Medical Center*. Unpublished master's thesis, Baylor University, Waco, Texas.
- Cramer, E. (2003). *Teams assess medical holdovers at 14 posts*. Retrieved January 7, 2005 from http://www4.army.mil/ocpa/print.php?story_id_key=5374
- Denning, J.D., & Peake, J.B. (2004). *Statement By Daniel J. Denning Principal Deputy Assistant Secretary Of The Army (Manpower And Reserve Affairs) And Lieutenant General James B. Peake The Surgeon General Of The United States Of The Army Before The Total Force Subcommittee Committee On Armed Services United States House Of Representatives On Reserve Component*

Healthcare: Medical Holdover Personnel In Current And Future Deployments

January 21, 2004. Retrieved August 25, 2004 from

<http://www.house.gov/hasc/openingstatementsandpressreleases/108thcongress/04-01-21denning.html>

Department of Defense. (2004). *Memorandum Subject: Interim Policy Guidance for Implementation of Medical Management Programs*, dated April 7, 2004, Office of the Assistant Secretary of Defense for Health Affairs. (HA Policy 04-008).

Department of Defense. (2005). *Services Daily Mobilization Report January 5, 2005*, Office of the Secretary of Defense for Reserve Affairs.

Downs, A. (1972). Up and down with ecology: The "issue attention cycle." *Public Interest*, 28, 38-50. Retrieved February 28, 2005 from <http://www.anthonydowns.com/upanddown.htm>

Galloway, J. (2004). *Army Relying More Than Ever on Guard, Reserves*. Retrieved November 1, 2004 http://www.military.com/NewContent/0,13190,Galloway_030404,00.html?

Government Accountability Office. (2003a). *Defense Health Care: Army Needs to Assess the Health Status of All Early-Deploying Reservists*. (GAO-03-437).

Government Accountability Office. (2003b). *Military Personnel: DoD Needs More Data to Address Financial and Health Care Issues Affecting Reservists*. (GAO-03-1004).

Great Plains Regional Medical Command. (2004). *Memorandum of Agreement Great Plains Regional Medical Command support to the Arkansas Community Based Health Care Organization (AR CBHCO)*, dated May 25, 2004.

Halliday, J.M., Oaks, D., and Sollinger, J.M. (2000). *Rand Arroyo Center, Issue paper.*

Breaking the Mold: A New Paradigm for the Reserve Components. Retrieved

March 2, 2005 from <http://www.rand.org/publications/IP/IP190/>

Installation Management Agency. (2004). *Netcall 19a, Billeting Guidance and*

Reporting Criteria for Mobilizing soldiers, dated January 7, 2004.

Kalamaras, P. (2004). *A White Paper: Processing Medical Holdover (MHO)*

Personnel through the Military Health System. Unpublished white paper Baylor

University, Waco, Texas.

Kidd, J.M. (2004). *House Statement By Colonel John M. Kidd Garrison Commander*

Fort Stewart, Georgia Before The Total Force Subcommittee Committee On

Armed Services United States House Of Representatives On Reserve

Component Healthcare: Medical Holdover Personnel In Current And Future

Deployments January 21, 2004. Retrieved August 25, 2004 from

<http://www.house.gov/hasc/openingstatementsandpressreleases/108thcongress/04-01-21kidd.html>

Leahy, P. (2003). *Report by Caucus Co-Chairs Senators Christopher S. Bond and*

Patrick J. Leahy on National Guard and Army Reservists on Medical Hold at Fort

Stewart, Georgia on October 24, 2003. Retrieved March 2, 2005 from

<http://leahy.senate.gov/press/200310/102403a.html>

Ragsdale, C.T. (1997). *Spreadsheet Modeling and Decision Analysis: A Practical*

Introduction to Management Science (2d ed.). Stamford, Connecticut: South-

Western College.

Schoomaker, P.J. (2003). *The Way Ahead: Our Army at War, Ready and Relevant*.

Washington, D.C: Army Strategic Communications. Retrieved March 22, 2005
from http://www.army.mil/thewayahead/R&RBooklet_final.pdf.zip

Schreckhise, C. (2000). *A Critical Review of the Army Medical Board System at Madigan Army Medical Center*. Unpublished master's thesis, Baylor University, Waco, Texas.

Stickers, R.B. (1998). DECMAT Program for Windows (Version 2.2) [Computer software]. Fort Leavenworth, KS: U.S. Army Command and General Staff College.

Stryker Brigade Combat Teams Welcome to Army Transformation. (n.d.) Retrieved March 21, 2005 from <http://www.lewis.army.mil/transformation/index.asp>

TRICARE Management Activity. (2003). *Access Management Report, October 2003*. Retrieved November 3, 2004 from
<http://www.tricare.osd.mil/tools/ArchivedReports/ATC/ATC.htm>

TRICARE Management Activity. (2005). *Case Management in the Military Health System*. Retrieved February 25, 2005 from
http://www.tricare.osd.mil/OCMO/case_management.cfm

U.S. Army. (2004a). *Memorandum Subject: Medical Holdover, Billeting and Command and Control Policy*, dated November 13, 2004. (DA Message ID 595145). Retrieved September 14, 2004 from
<http://www.bliss.army.mil/LocalUnitLinks/5035thMobilization/Med%20Hold/mhbp%20conv%20poster%20word.doc>

U.S. Army. (2004b). *Headquarters, Department of the Army Operations Order 04-01, Annex Q (Medical Holdover Operations)*, dated January 20, 2004.

U.S. Army. (2004c). *Army G1, Personnel Policy Guidance Implementation Guidance 25-day Rule for REFRAD of soldiers with Pre-existing Medical Conditions*, dated February 12, 2004. Retrieved on September 7, 2004 from http://www.armyg1.army.mil/MilitaryPersonnel/PPG/ImpGuidance25DayRule_final.doc

U.S. Army. (2004d). *2004 Army Transformation Roadmap, July 2004*. Retrieved March 22, 2004 from http://www.oft.osd.mil/library/library_files/document_386_ATR_2004_Final.pdf

U.S. Army Forces Command. (2004). *FORSCOM Implementation Plan for Community Based Health Care Initiative (CBHCI)*, dated February 12, 2004.

U.S. Army Forces Command. (2005). *CBHCO Sourcing*. FORSCOM. Excel file received via email from COL Barbara Scherb, CBHCO Program Director, on March 29, 2005.

Weissert, C.S., and Weissert, G.W. (2002). *Governing Health: The Politics of Health Policy*, The Johns Hopkins University Press: Baltimore, MD.